

TEST REPORT

of

FCC Part 15 Subpart E §15.407

FCC ID: A3LNFA455

Equipment Under Test : SAMSUNG NOTEBOOK
Model Name : NFA455 (Host PC : NP500R5H)
Applicant : Samsung Electronics Co., Ltd.
Manufacturer : Samsung Electronics Co., Ltd.
Date of Test(s) : 2015.05.28 ~ 2015.06.02
Date of Issue : 2015.06.02

In the configuration tested, the EUT complied with the standards specified above.

Tested By:



Date:

2015.06.02

Jinhyoung Cho

Approved By:



Date:

2015.06.02

Hyunchoe You

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1. General Information

1.1. Testing Laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)

-Wireless Div. 2FL, 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 435-837

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx>.

Telephone : + 82 31 688 0901

FAX : + 82 31 688 0921

1.2. Details of Applicant

Applicant : Samsung Electronics Co., Ltd.

Address : 129, Samsung-Ro, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, Korea

Contact Person : Seo, Bum-Hee

Phone No. : +82 31 8062 4313

1.3. Description of EUT

Kind of Product	SAMSUNG NOTEBOOK
Model Name	NFA455 (Host PC : NP500R5H)
Frequency Range	2 402 MHz ~ 2 480 MHz (BT, LE), 2 412 MHz ~ 2 462 MHz (11b/g/n_HT20), 2 422 MHz ~ 2 452 MHz (11n_HT40), 5 745 MHz ~ 5 805 MHz (11a/n_HT20, 11ac_VHT20), 5 755 MHz ~ 5 795 MHz (11n_HT40, 11ac_VHT40), 5 775 MHz (11ac_VHT80), 5 180 MHz ~ 5 240 MHz (11a/n_HT20 – Non DFS, 11ac_VHT20 – Non DFS), 5 190 MHz ~ 5 230 MHz (11n_HT40 – Non DFS, 11ac_VHT40 – Non DFS), 5 210 MHz (11ac_VHT80 – Non DFS), 5 260 MHz ~ 5 320 MHz (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 270 MHz ~ 5 310 MHz (11n_HT40 – DFS, 11ac_VHT40 – DFS), 5 290 MHz (11ac_VHT80 – DFS), 5 500 MHz ~ 5 700 MHz (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 510 MHz ~ 5 670 MHz (11n_HT40 – DFS, 11ac_VHT40 – DFS), 5 530 MHz ~ 5 690 MHz (11ac_VHT80 – DFS)
Modulation Technique	DSSS, OFDM, GFSK, π/4DQPSK, 8DPSK
Number of Channels	11 channel (11b/g/n_HT20), 7 channel (11n_HT40), 4 channel (11a/n_HT20, 11ac_VHT20), 2 channel (11n_HT40, 11ac_VHT40), 1 channel (11ac_VHT80), 4 channel (11a/n_HT20–Non DFS, 11ac_VHT20–Non DFS), 2 channel (11n_HT40 – Non DFS, 11ac_VHT40–Non DFS), 1 channel (11ac_VHT80–Non DFS), 12 channel (11a/n_HT20 – DFS, 11ac_VHT20 – DFS), 5 channel (11n_HT40 – DFS, 11ac_VHT40 – DFS), 3 channel (11ac_VHT80 – DFS), 79 channel (BT,), 40 channel (LE)
Antenna Type	Internal type

1.4. Declaration by the manufacturer

- WLAN & BT do not transmit simultaneously
- EUT is not supported TDWR(5.6-5.65 GHz) band.

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1.5. Test equipment list

Equipment	Manufacturer	Model	S/N	Cal Date	Cal Interval	Cal Due.
Signal Generator	R&S	SMBV100A	255834	Jun. 25, 2014	Annual	Jun. 25, 2015
Signal Generator	R&S	SMR40	100272	Jul. 18, 2014	Annual	Jul. 18, 2015
Spectrum Analyzer	Agilent	N9030A	US53120526	Jul. 17, 2014	Annual	Jul. 17, 2015
Attenuator	MCLI	FAS-23-20	23834	Jun. 20, 2014	Annual	Jun. 20, 2015
High Pass Filter	Wainwright	WHK6.0/18G-10SS	11	Jun. 10, 2014	Annual	Jun. 10, 2015
High Pass Filter	Wainwright	WHNX7.5/26.5G-6SS	11	Jun. 10, 2014	Annual	Jun. 10, 2015
Low Pass Filter	Mini circuits	NLP-1200+	V8979400903-2	Mar. 12, 2015	Annual	Mar. 12, 2016
Preamplifier	H.P.	8447F	2944A03909	Aug. 27, 2014	Annual	Aug. 27, 2015
Preamplifier	R&S	SCU-18	10117	Apr. 10, 2015	Annual	Apr. 10, 2016
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	May 07, 2015	Annual	May 07, 2016
Bilog Antenna	SCHWARZBECK MESSELEKTRONIK	VULB9163	396	Jun. 07, 2013	Biennial	Jun. 07, 2015
Loop Antenna	SCHWARZBECK MESSELEKTRONIK	FMZB 1519	1519-039	Jul. 09, 2013	Biennial	Jul. 09, 2015
Horn Antenna	R&S	HF906	100326	Dec. 10, 2013	Biennial	Dec. 10, 2015
Horn Antenna	SCHWARZBECK MESSELEKTRONIK	BBHA 9170	BBHA9170431	May 15, 2014	Biennial	May 15, 2016
Test Receiver	R&S	ESU26	100109	Mar. 03, 2015	Annual	Mar. 03, 2016
Antenna Master	INN-CO	MM4000	N/A	N/A	N/A	N.C.R.
Turn Table	INN-CO	DS 1200 S	N/A	N/A	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L x W x H (9.6 m x 6.4 m x 6.6 m)	N/A	N/A	N/A	N.C.R.

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1.6. Summary of test result

The EUT has been tested according to the following specifications:

APPLIED STANDARD:FCC Part15 subpart E § 15.407		
Section in FCC 15	Test Item	Result
15.205(a) 15.209(a) 15.407(b)(1) 15.407(b)(2) 15.407(b)(3) 15.407(b)(4)	Transmitter radiated spurious emissions	Complied

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (ANSI C63.4-2003) and the guidance provided in KDB 789033 D02 v01 were used in the measurement of the DUT.

1.8. Sample calculation

Where relevant, the following sample calculation is provided:

1.8.1. Radiation test

Field strength level (dB μ V/m) = Measured level (dB μ V) + Antenna factor (dB) + Cable loss (dB) - amplifier (dB)

1.9. Test report revision

Revision	Report number	Date of Issue	Description
0	F690501/RF-RTL008783	2015.06.02	Initial

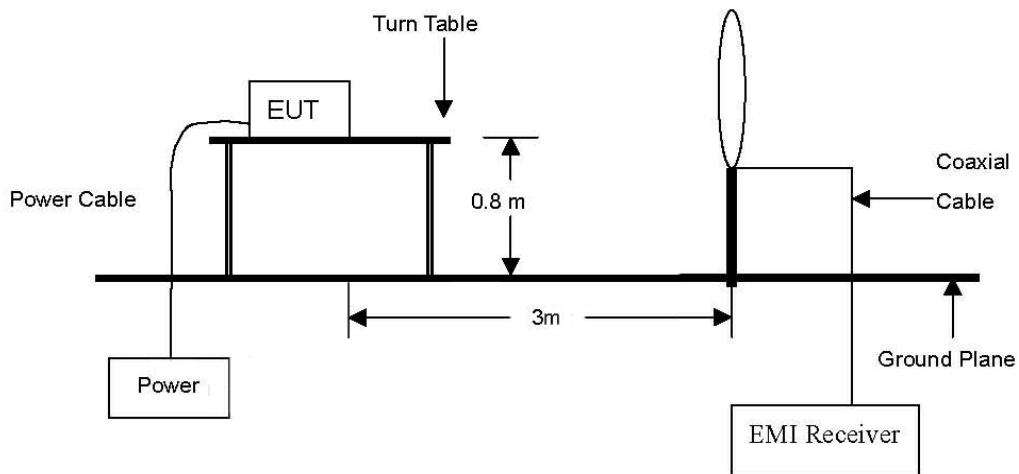
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2. Transmitter radiated spurious emissions

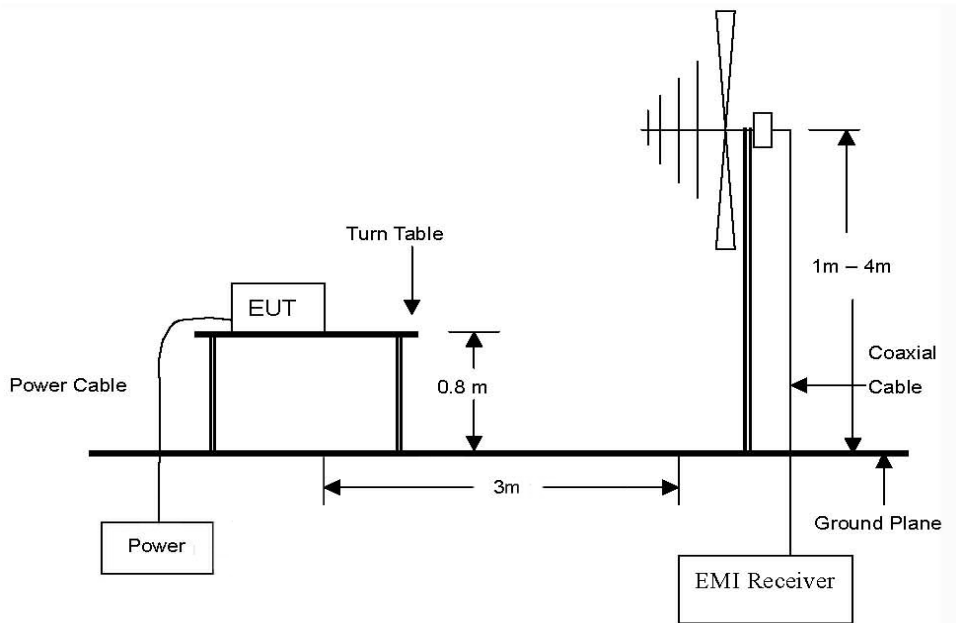
2.1. Test setup

2.1.1. Transmitter Radiated Spurious Emissions

The diagram below shows the test setup that is utilized to make the measurements for emission from 9 kHz to 30 MHz Emissions.

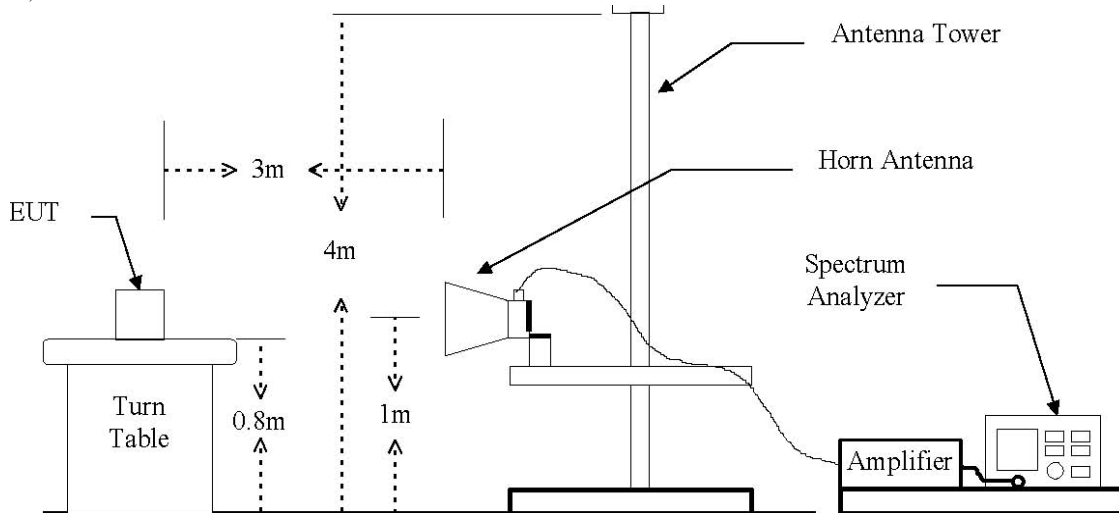


The diagram below shows the test setup that is utilized to make the measurements for emission from 30 MHz to 1 GHz Emissions.



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The diagram below shows the test setup that is utilized to make the measurements for emission. The spurious emissions were investigated from 1 GHz to the 10th harmonic of the highest fundamental frequency or 40 GHz, whichever is lower.



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2.2. Limit

For transmitters operating in the 5.15 ~ 5.25 GHz band: All emissions outside of the 5.15 ~ 5.35 GHz band shall not exceed an e.i.r.p. of -27 m/MHz.

For transmitters operating in the 5.25 ~ 5.35 GHz band: All emissions outside of the 5.15 ~ 5.35 GHz band shall not exceed an e.i.r.p. of -27 dB m/MHz.

For transmitters operating in the 5.47 ~ 5.725 GHz band: All emissions outside of the 5.47 ~ 5.725 GHz band shall not exceed an e.i.r.p. of -27 dB m/MHz.

For transmitters operating in the 5.725 ~ 5.78 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dB m/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dB m/MHz.

According to § 15.209(a), Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Distance (Meters)	Field Strength (dB μ V/m)	Field Strength (μ V/m)
0.009 – 0.490	300	20 log (2 400/F(kHz))	2 400/F(kHz)
0.490 – 1.705	30	20 log (24 000/F(kHz))	24 000/F(kHz)
1.705 – 30.0	30	29.54	30
30 - 88	3	40.0	100**
88 – 216	3	43.5	150**
216 – 960	3	46.0	200**
Above 960	3	54.0	500

**Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§15.231 and 15.241.

2.3. Test procedures

Radiated spurious emissions from the EUT were measured according to the dictates in section G of KDB 789033 D02 v01 and ANSI C63.4-2003.

The emissions of the configuration that produced the worst case emissions are reported in this section.

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2.3.1. Test procedures for radiated spurious emissions

2.3.1.1. Test Procedures for emission below 30 MHz

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. Then antenna is a loop antenna is fixed at one meter above the ground to determine the maximum value of the field strength. Both parallel and perpendicular of the antenna are set to make the measurement.
3. For each suspected emission, the EUT was arranged to its worst case and then the table was turned from 0 degrees to 360 degrees to find the maximum reading.
4. The test-receiver system was set to average or quasi peak detect function and Specified Bandwidth with Maximum Hold Mode.

2.3.1.2. Test Procedures for emission from above 30 MHz

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter anechoic chamber test site. The table was rotated 360 degrees to determine the position of the highest radiation.
2. During performing radiated emission below 1 GHz, the EUT was set 3 meters away from the interference receiving antenna, which was mounted on the top of a variable-height antenna tower. During performing radiated emission above 1 GHz, the EUT was set 3 meter away from the interference-receiving antenna.
3. The antenna is a bi-log antenna, a horn antenna and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE;

- The measurements for below 1 GHz refer to section II.G.4.
Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.
- The measurements for above 1 GHz II.G.5.
Peak emission levels are measured by setting the analyzer as follows:
Set to RBW = 1 MHz, VBW ≥ 3 MHz, Detector = Peak, Sweep time = auto, Trace mode= Max hold
- The measurements for above 1 GHz II.G.6.
Average emission levels are measured by setting the analyzer as follows:
Set to RBW = 1 MHz, VBW ≥ 3 MHz, Detector = RMS, Averaging type = power(i.e., RMS), Sweep time = auto, Trace mode= trace average of at least 100 traces. If the transmission is not continuous, the number of traces shall be increased by a factor of 1/x, where x is the duty cycle.
If duty cycle < 98 percent, a correction factor shall be added to the measurement results.
- Averaging (RMS) mode was used above the correction factor is 10 log (1/x), where x is the duty cycle.
- Test orthogonal plan of EUT is X-axis during radiation test.

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2.4. Test result

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

2.4.1. Spurious radiated emission

The frequency spectrum from 9 kHz to 1 000 MHz was investigated. All reading values are applied for peak values per frequency band.

Radiated Emissions			Ant.	Correction Factors		Total	FCC Limit	
Frequency (MHz)	Reading (dBμV)	Detect Mode	Pol.	AF (dB/m)	AMP + CL (dB)	Actual (dBμV/m)	Limit (dBμV/m)	Margin (dB)
101.90	39.86	Peak	H	14.36	-25.82	28.40	43.50	15.10
101.90	39.79	Peak	V	12.13	-25.82	26.10	43.50	17.40
211.75	44.35	Peak	V	12.20	-24.65	31.90	43.50	11.60
212.48	45.61	Peak	H	11.94	-24.65	32.90	43.50	10.60
Above 300.00	Not Detected	-	-	-	-	-	-	-

Remark:

- Spurious emissions for all channels and modes were investigated and almost the same below 1 GHz.
- Reported spurious emissions are in **11a / 6 Mbps / 36 channel** as worst case among other modes.
- According to § 15.31(o), Emission levels are not reported much lower than the limits by over 20 dB.
- Radiated spurious emission measurement as below
(Actual = Reading + Antenna Factor + Amp + CL)

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2.4.2. Spurious radiated emission for above 1 GHz

802.11a (Band 1) _6 Mbps

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	9.96	Peak	V	31.73	8.76	-	50.45	74.00	23.55
*4 500.00	1.14	Average	V	31.73	8.76	0.27	41.90	54.00	12.10
*5 148.70	23.05	Peak	V	33.52	10.37	-	66.94	74.00	7.06
*5 148.70	5.68	Average	V	33.52	10.37	0.27	49.84	54.00	4.16
*5 150.00	15.73	Peak	V	33.51	10.40	-	59.64	74.00	14.36
*5 150.00	5.68	Average	V	33.51	10.40	0.27	49.86	54.00	4.14

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11a (Band 2A) _6 Mbps

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	11.31	Peak	V	33.91	9.37	-	54.59	74.00	19.41
*5 350.00	2.90	Average	V	33.91	9.37	0.27	46.45	54.00	7.55
*5 351.32	20.61	Peak	V	33.92	9.38	-	63.91	74.00	10.09
*5 351.32	3.04	Average	V	33.92	9.38	0.27	46.61	54.00	7.39
*5 460.00	10.73	Peak	V	34.05	9.84	-	54.62	74.00	19.38
*5 460.00	0.77	Average	V	34.05	9.84	0.27	44.93	54.00	9.07

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11a (Band 2C) _6 Mbps

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	10.78	Peak	V	33.91	9.37	-	54.06	74.00	19.94
*5 350.00	1.70	Average	V	33.91	9.37	0.27	45.25	54.00	8.75
*5 424.25	13.13	Peak	V	34.14	9.62	-	56.89	74.00	17.11
*5 424.25	2.24	Average	V	34.14	9.62	0.27	46.27	54.00	7.73
*5 460.00	10.78	Peak	V	34.05	9.84	-	54.67	74.00	19.33
*5 460.00	0.85	Average	V	34.05	9.84	0.27	45.01	54.00	8.99

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11a (Band 3)_6 Mbps

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 710.32	19.75	Peak	V	34.04	10.01	-	63.80	68.23	4.43
5 724.47	24.29	Peak	V	34.02	9.94	-	68.25	78.23	9.98

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 805 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 851.09	21.94	Peak	V	34.27	9.90	-	66.11	78.23	12.12
5 860.00	17.77	Peak	V	34.35	9.93	-	62.05	68.23	6.18

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11n_HT20 (Band 1)_MCS0

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	10.13	Peak	V	31.73	8.76	-	50.62	74.00	23.38
*4 500.00	1.61	Average	V	31.73	8.76	0.22	42.32	54.00	11.68
*5 149.35	19.21	Peak	V	33.52	10.39	-	63.12	74.00	10.88
*5 149.35	6.76	Average	V	33.52	10.39	0.22	50.89	54.00	3.11
*5 150.00	18.12	Peak	V	33.51	10.40	-	62.03	74.00	11.97
*5 150.00	6.71	Average	V	33.51	10.40	0.22	50.84	54.00	3.16

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802. 11n_HT20 (Band 2A)_MCS0

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	10.58	Peak	V	33.91	9.37	-	53.86	74.00	20.14
*5 350.00	2.55	Average	V	33.91	9.37	0.22	46.05	54.00	7.95
*5 350.77	19.56	Peak	V	33.91	9.37	-	62.84	74.00	11.16
*5 350.77	3.12	Average	V	33.91	9.37	0.22	46.62	54.00	7.38
*5 460.00	10.78	Peak	V	34.05	9.84	-	54.67	74.00	19.33
*5 460.00	1.19	Average	V	34.05	9.84	0.22	45.30	54.00	8.70

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802. 11n_HT20 (Band 2C)_MCS0

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	9.26	Peak	V	33.91	9.37	-	52.54	74.00	21.46
*5 350.00	1.27	Average	V	33.91	9.37	0.22	44.77	54.00	9.23
*5 425.79	12.64	Peak	V	34.13	9.63	-	56.40	74.00	17.60
*5 425.79	2.20	Average	V	34.13	9.63	0.22	46.18	54.00	7.82
*5 460.00	10.25	Peak	V	34.05	9.84	-	54.14	74.00	19.86
*5 460.00	0.72	Average	V	34.05	9.84	0.22	44.83	54.00	9.17

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11n_HT20 (Band 3)_MCS0

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 709.60	19.87	Peak	V	34.04	10.01	-	63.92	68.23	4.31
5 721.54	24.91	Peak	V	34.01	9.96	-	68.88	78.23	9.35

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 805 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.58	22.50	Peak	V	34.27	9.90	-	66.67	78.23	11.56
5 861.56	15.26	Peak	V	34.35	9.93	-	59.54	68.23	8.69

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11n_HT40 (Band 1) _MCS0

A. Low Channel (5 190 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	8.33	Peak	V	31.73	8.76	-	48.82	74.00	25.18
*4 500.00	0.87	Average	V	31.73	8.76	0.76	42.12	54.00	11.88
*5 148.70	18.26	Peak	V	33.52	10.37	-	62.15	74.00	11.85
*5 148.70	5.26	Average	V	33.52	10.37	0.76	49.91	54.00	4.09
*5 150.00	13.16	Peak	V	33.51	10.40	-	57.07	74.00	16.93
*5 150.00	5.26	Average	V	33.51	10.40	0.76	49.93	54.00	4.07

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 230 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11n_HT40 (Band 2A) _MCS0

A. Low Channel (5 270 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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B. High Channel (5 310 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	15.19	Peak	V	33.91	9.37	-	58.47	74.00	15.53
*5 350.00	4.40	Average	V	33.91	9.37	0.76	48.44	54.00	5.56
*5 357.48	19.07	Peak	V	33.95	9.40	-	62.42	74.00	11.58
*5 357.48	4.80	Average	V	33.95	9.40	0.76	48.91	54.00	5.09
*5 460.00	10.55	Peak	V	34.05	9.84	-	54.44	74.00	19.56
*5 460.00	1.23	Average	V	34.05	9.84	0.76	45.88	54.00	8.12

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802. 11n_HT40 (Band 2C)_MCS0

A. Low Channel (5 510 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	9.67	Peak	V	33.91	9.37	-	52.95	74.00	21.05
*5 350.00	1.76	Average	V	33.91	9.37	0.76	45.80	54.00	8.20
*5 453.51	14.11	Peak	V	34.06	9.74	-	57.91	74.00	16.09
*5 453.51	2.92	Average	V	34.06	9.74	0.76	47.48	54.00	6.52
*5 460.00	10.46	Peak	V	34.05	9.84	-	54.35	74.00	19.65
*5 460.00	2.53	Average	V	34.05	9.84	0.76	47.18	54.00	6.82

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 550 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 670 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11n_HT40 (Band 3)_MCS0

A. Low Channel (5 755 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 713.88	21.67	Peak	V	34.02	9.99	-	65.68	68.23	2.55
5 721.62	26.49	Peak	V	34.01	9.96	-	70.46	78.23	7.77

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 795 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 853.58	17.65	Peak	V	34.29	9.91	-	61.85	78.23	16.38
5 860.56	13.54	Peak	V	34.35	9.93	-	57.82	68.23	10.41

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 1)_MCS0

A. Low Channel (5 180 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	9.87	Peak	V	31.73	8.76	-	50.36	74.00	23.64
*4 500.00	0.46	Average	V	31.73	8.76	0.22	41.17	54.00	12.83
*5 146.75	22.11	Peak	V	33.54	10.33	-	65.98	74.00	8.02
*5 146.75	3.59	Average	V	33.54	10.33	0.22	47.68	54.00	6.32
*5 150.00	21.31	Peak	V	33.51	10.40	-	65.22	74.00	8.78
*5 150.00	3.59	Average	V	33.51	10.40	0.22	47.72	54.00	6.28

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 220 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 240 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 2A)_MCS0

A. Low Channel (5 260 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 300 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 320 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	12.47	Peak	V	33.91	9.37	-	55.75	74.00	18.25
*5 350.00	2.13	Average	V	33.91	9.37	0.22	45.63	54.00	8.37
*5 350.77	18.03	Peak	V	33.91	9.37	-	61.31	74.00	12.69
*5 350.77	2.90	Average	V	33.91	9.37	0.22	46.40	54.00	7.60
*5 460.00	10.84	Peak	V	34.05	9.84	-	54.73	74.00	19.27
*5 460.00	1.26	Average	V	34.05	9.84	0.22	45.37	54.00	8.63

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 2C)_MCS0

A. Low Channel (5 500 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	10.21	Peak	V	33.91	9.37	-	53.49	74.00	20.51
*5 350.00	1.32	Average	V	33.91	9.37	0.22	44.82	54.00	9.18
*5 451.09	12.47	Peak	V	34.06	9.71	-	56.24	74.00	17.76
*5 451.09	2.26	Average	V	34.06	9.71	0.22	46.25	54.00	7.75
*5 460.00	11.03	Peak	V	34.05	9.84	-	54.92	74.00	19.08
*5 460.00	1.59	Average	V	34.05	9.84	0.22	45.70	54.00	8.30

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 580 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 700 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT20 (Band 3)_MCS0

A. Low Channel (5 745 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 714.64	20.19	Peak	V	34.02	9.99	-	64.20	68.23	4.03
5 723.06	24.55	Peak	V	34.01	9.95	-	68.51	78.23	9.72

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 785 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 805 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 850.83	21.56	Peak	V	34.27	9.90	-	65.73	78.23	12.50
5 861.68	16.77	Peak	V	34.35	9.94	-	61.06	68.23	7.17

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 1) _MCS0

A. Low Channel (5 190 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	11.41	Peak	V	31.73	8.76	-	51.90	74.00	22.10
*4 500.00	0.72	Average	V	31.73	8.76	0.41	41.62	54.00	12.38
*5 142.20	15.26	Peak	V	33.58	10.22	-	59.06	74.00	14.94
*5 142.20	4.81	Average	V	33.58	10.22	0.41	49.02	54.00	4.98
*5 150.00	15.07	Peak	V	33.51	10.40	-	58.98	74.00	15.02
*5 150.00	4.79	Average	V	33.51	10.40	0.41	49.11	54.00	4.89

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 230 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

802.11ac_VHT40 (Band 2A)_MCS0

A. Low Channel (5 270 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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B. High Channel (5 310 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	13.68	Peak	V	33.91	9.37	-	56.96	74.00	17.04
*5 350.00	4.68	Average	V	33.91	9.37	0.41	48.37	54.00	5.63
*5 356.49	17.33	Peak	V	33.95	9.39	-	60.67	74.00	13.33
*5 356.49	5.07	Average	V	33.95	9.39	0.41	48.82	54.00	5.18
*5 460.00	10.09	Peak	V	34.05	9.84	-	53.98	74.00	20.02
*5 460.00	0.97	Average	V	34.05	9.84	0.41	45.27	54.00	8.73

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 2C)_MCS0

A. Low Channel (5 510 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	9.70	Peak	V	33.91	9.37	-	52.98	74.00	21.02
*5 350.00	1.62	Average	V	33.91	9.37	0.41	45.31	54.00	8.69
*5 363.86	13.66	Peak	V	34.03	9.42	-	57.11	74.00	16.89
*5 363.86	2.29	Average	V	34.03	9.42	0.41	46.15	54.00	7.85
*5 460.00	11.85	Peak	V	34.05	9.84	-	55.74	74.00	18.26
*5 460.00	1.16	Average	V	34.05	9.84	0.41	45.46	54.00	8.54

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. Middle Channel (5 550 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

C. High Channel (5 670 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT40 (Band 3)_MCS0

A. Low Channel (5 755 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 712.30	20.85	Peak	V	34.03	10.00	-	64.88	68.23	3.35
5 720.38	25.39	Peak	V	34.00	9.96	-	69.35	78.23	8.88

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 795 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 859.18	17.35	Peak	V	34.34	9.93	-	61.62	78.23	16.61
5 861.36	14.34	Peak	V	34.35	9.93	-	58.62	68.23	9.61

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 1) _MCS0

A. Low Channel (5 210 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*4 500.00	8.36	Peak	V	31.73	8.76	-	48.85	74.00	25.15
*4 500.00	1.00	Average	V	31.73	8.76	1.14	42.63	54.00	11.37
*5 148.70	16.64	Peak	V	33.52	10.37	-	60.53	74.00	13.47
*5 148.70	6.06	Average	V	33.52	10.37	1.14	51.09	54.00	2.91
*5 150.00	14.18	Peak	V	33.51	10.40	-	58.09	74.00	15.91
*5 150.00	5.44	Average	V	33.51	10.40	1.14	50.49	54.00	3.51

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 2A)_MCS0

A. Low Channel (5 290 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	14.28	Peak	V	33.91	9.37	-	57.56	74.00	16.44
*5 350.00	4.98	Average	V	33.91	9.37	1.14	49.40	54.00	4.60
*5 350.44	16.43	Peak	V	33.91	9.37	-	59.71	74.00	14.29
*5 350.44	4.98	Average	V	33.91	9.37	1.14	49.40	54.00	4.60
*5 460.00	10.02	Peak	V	34.05	9.84	-	53.91	74.00	20.09
*5 460.00	1.37	Average	V	34.05	9.84	1.14	46.40	54.00	7.60

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 2C)_MCS0

A. Low Channel (5 530 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
*5 350.00	12.38	Peak	V	33.91	9.37	-	55.66	74.00	18.34
*5 350.00	1.81	Average	V	33.91	9.37	1.14	46.23	54.00	7.77
*5 443.06	14.21	Peak	V	34.05	9.67	-	57.93	74.00	16.07
*5 443.06	3.38	Average	V	34.05	9.67	1.14	48.24	54.00	5.76
*5 460.00	11.45	Peak	V	34.05	9.84	-	55.34	74.00	18.66
*5 460.00	1.93	Average	V	34.05	9.84	1.14	46.96	54.00	7.04

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

B. High Channel (5 690 MHz)

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

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802.11ac_VHT80 (Band 3)_MCS0

A. Low Channel (5 775 MHz)

Radiated Emissions			Ant.	Correction Factors			Total	Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
5 705.37	17.67	Peak	V	34.05	10.03	-	61.75	68.23	6.48
5 724.69	20.53	Peak	V	34.02	9.94	-	64.49	78.23	13.74
5 850.02	18.47	Peak	V	34.26	9.90	-	62.63	78.23	15.60
5 866.72	14.45	Peak	V	34.36	9.95	-	58.76	68.23	9.47

Radiated Emissions			Ant	Correction Factors			Total	FCC Limit	
Frequency (MHz)	Reading (dB μ V)	Detect Mode	Pol.	AF (dB/m)	AMP+CL (dB)	Duty (dB)	Actual (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)
Above 1 000.00	Not detected	-	-	-	-	-	-	-	-

Remark:

1. “*” means the restricted band.
2. Radiated emissions measured in frequency above 1 000 MHz were made with an instrument using Peak / average detector mode if frequency was in restricted band. Otherwise the frequency was out of restricted band, only peak detector should be used.
3. According to § 15.31(o), Emission levels are not reported much lower than the limits by over 20 dB.
4. Band edge measurement
(Actual = Reading + Antenna Factor + CL + Duty cycle)
5. Radiated spurious emission measurement
(Actual = Reading + Antenna Factor + Amp + CL + Duty cycle)
6. If frequency was out of restricted band, the calculation method for peak limit is same as below:
68.23 dB μ V/m = EIRP – 20 log(d) + 104.77 = -27 – 20 log (3) + 104.77
7. In case of the frequency between 5 715 MHz ~ 5 725 MHz and 5 850 MHz ~ 5 860 MHz the limit is determined as 78.23 dB μ V/m.
78.23 dB μ V/m = EIRP – 20 log(d) + 104.77 = -17 – 20 log (3) + 104.77

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